5/23/94

BASIS OF DECISION
Coulee Express Mini-Mart
Facility No. 4-020033

I. Coulee Express Mini-Mart is located at 200 Roosevelt Way, Coulee Dam, WA, on the Colville Indian Reservation.

II. Initial notification was received on 9/17/92 from Jim Ray, part-owner through the Ray-Tozzer Partnership. Product was detected through tank monitoring and complaints from a neighboring motel about gasoline vapors in the basement. Up to 1,000 gallons was reported lost from a 3,000 gallon tank.

III. On 9/18/92 the unleaded gas tank in question was pumped. Removal of all tanks on the site was completed on 10/2/92. Further excavation was accomplished to a depth of 21 feet, with the final excavation footprint being approximately 28 feet square with 605 cubic yards of soil excavated and stockpiled on-site. Over the next 6 months natural biodegradation and vaporization caused the material to degrade to acceptable standards. A 10 mil plastic sheeting, plus a 2 foot cap of clay on that, were laid in the excavation and the removed material then used as backfill.

IV. Three monitoring wells were drilled: two on-site and one across the street at the motel. The only well that showed any petroleum contamination was the on-site well drilled directly over the leak spot. Below the excavation's 21-foot depth, the remaining soil contamination was as follows: [measured using Washington's method WTPH-G (gasoline)] a) 22'BGS- 321 ppm; b) 25'BGS- 378 ppm; c) 30'BGS- 114 ppm; d) 35'BGS- 76 ppm; and e) 50'BGS- <1.0 ppm. BTEX and lead in the soils were also sampled with low values and many non-detect results.

V. Soils were generally sand, gravel and cobbles, although a layer of clay was found at the bottom of the excavation. Groundwater in the area was estimated to be 160 feet, based on nearby Bureau of Reclamation wells downstream of the Grand Coulee Dam. The nearest three of these wells downgradient of the site, were sampled and the groundwater samples showed no petroleum contaminants. Groundwater flow appears to be to the West to Northwest in the area, based on Bureau of Reclamation well data. No private wells were identified downgradient. The Columbia River was 900 feet down gradient from the site and 90 feet lower in elevation. A public water system well is 3/4 mile upgradient from the site.

VI. As part of the site characterization study report (May 1993), the owners presented two possible remediation methods for the deeper, non-excavated soils. The first was an active, soil venting scheme, and the second was capping the contamination site with a non-permeable material and allowing natural bioremediation over time. Because of the very low potential for human health or environmental hazards posed by possible migration of the

remaining contaminates (due to the small volume of contaminated soil and the low precipitation in the region) and because of the cost-effectiveness of the capping procedure, EPA, in a letter, dated June 30, 1993, accepted the site capping alternative. When satisfactorily accomplished, this action completed the site cleanup requirements. Documentation of the asphalt capping of the leak site and proper abandonment of the three on-site wells was received by EPA on 10/24/93 and 7/23/93, respectively.

VII. The "Regional Indian Land Implementation Guidance: Non-Clean Closure Policy" was not in place until December 1993, and therefore several of the new requirements for a non-clean closure were not incorporated into the EPA approval requirements for this cleanup operation; however it is felt that little, if any, measurable benefit would accrue in applying the current non-clean closure requirements retro-actively to this site.

By: Robert R. Cutler
Robert Cutler
UST/LUST Coordinator
EPA Washington Operations Office

Date: 5/13/94

Concur: Harold Scott
Harold Scott
Environmental Engineer
EPA Region 10

Date: 5/23/94